

REMARKS

Claims 15-40 were pending. Claims 18, 26-37 and 39-40 have been canceled and new claims 41-45 added herein. Thus claims 15-17, 19-25, 38 and 41-45 are now pending. The applicants respectfully request reconsideration and allowance of the present application in view of the above amendments and the following remarks.

In part 12 of the Office Action Summary, none of the boxes are checked. However, the applicants filed a certified copy of the priority document on 8 September 2003, as indicated on the filing transmittal for the present application. The PAIR system shows that the priority document was received. Therefore, the applicants respectfully request acknowledgement of the claim for priority under section 119 and notice that the certified copy of the priority document has been received.

Claim 18 was objected to as being in improper dependent form. Claim 18 is canceled herein rendering the objection moot.

Claims 26, 27, 32-37 were rejected under 35 USC 102(e) as being allegedly anticipated by Itou, U.S. Patent No. 6,791,156. Claims 26-37 are canceled herein rendering the rejection moot.

Claims 26, 27, 29, 32, 33 and 37 were rejected under 35 USC 102(b) as being allegedly anticipated by Yamazaki, U.S. Patent No. 5,306,940. Claims 26-37 are canceled herein rendering the rejection moot.

Claims 15, 18-27, and 30-40 were rejected under 35 USC 102(b) as being allegedly anticipated by Cantarini et al., U.S. Patent No. 6,472,254 (hereinafter "Cantarini"). Claims 18, 26-37 and 39-40 are canceled herein rendering the rejection moot with regard to claims 18, 26,

27, 30-37 and 39-40. The rejection should be withdrawn with regard to the remaining claims 15, 19-25 and 38 for the following reasons.

Claim 38 is amended herein for clarification that the claimed method for manufacturing a semiconductor device that includes a prescribed semiconductor component from a standard platform formed on a semiconductor substrate, comprises forming the platform to include a plurality of repeated patterns of diffusion regions common to various semiconductor components in the substrate so that units of the diffusion regions are capable of being separated by trenches. The method further comprises separating a unit of the diffusion regions that constitutes the prescribed semiconductor component from the repeated patterns of diffusion regions by forming trenches; and connecting a metallization pattern to the semiconductor component.

In making the rejection with regard to claim 38, the Examiner alleges only that Figure 6 of Cantarini allegedly shows that a “[diffusion] structure is formed including a repeated pattern in the region.” Applicants respectfully submit the Examiner has mischaracterized what is being claimed. Claim 38 as noted above clearly recites the formation of a platform to include a plurality of repeated patterns of diffusion regions *common to various semiconductor components in the substrate so that units of the diffusion regions are capable of being separated by trenches*. The Examiner has not specifically alleged that Cantarini discloses the claimed separating of the diffusion regions by forming trenches, and, for at least the reasons set forth, applicants contend that Cantarini fails to disclose the forming the platform or separating the diffusion regions as claimed.

Cantarini, at best, describes an integrated device where cells are formed using N⁺ and P⁺ diffusions on a starting wafer. Since the cells are individually formed, any diffusion regions which might be shown, are already separated prior to trench formation. Further, since the cells

are individually formed, Cantarini cannot fairly be said to disclose a pattern of diffusion regions as being *common* to various semiconductor components.

It is important to note that Cantarini clearly contemplates forming significant aspects of the diffusion structures or other structures *after* trench processing (see, e.g. col. 2, lines 10-13, lines 33-34 and lines 42-43). Alternatively the disclosure in Cantarini makes clear that the order of the step of formation of trenches in the processing of the device is insignificant to the invention. Therefore, in Cantarini the lack of importance associated with the order of trench formation relative to the formation of diffusion structures *necessarily* means trench formation is not used for separating a unit of a plurality of repeated patterns of diffusion regions that constitute the prescribed semiconductor component as claimed. The noted deficiency of Cantarini is further amplified by the failure of Cantarini to disclose other steps of the claimed method such as forming a platform to include a plurality of repeated patterns of diffusion regions common to various semiconductor components in the substrate so that units of the diffusion regions are capable of being separated by trenches.

The indifference to the order of trench formation, as explicitly disclosed in Cantarini, and the lack of a disclosure of a step of forming a plurality of repeated patterns of diffusion regions common to various semiconductor components clearly contradicts the purpose of the invention in solving the problems as noted in the applicants' specification on page 2, lines 1-22 such as reducing electrical interference and reducing testing time normally associated with hybrid devices which are individually formed as in Cantarini.

Accordingly, it is respectfully submitted that a *prima facie* case of anticipation has not properly been established in that Cantarini fails to disclose all the claimed features as required. It is requested therefore that the rejection of claim 38 be reconsidered and withdrawn. Claims 15 and 19-25, by virtue of depending from claim 38 are allowable for at least the reasons set forth

herein above with regard to claim 38. It is respectfully requested therefore that the rejection of claims 15 and 19-25 be reconsidered and withdrawn.

Claims 16 and 28 were rejected under 35 USC 103(a) as being unpatentable over Itou, Yamazaki and Cantarini taken individually. Claim 28 is canceled and will not be discussed. The applicants respectfully request that the rejection of claim 16 be withdrawn for the following reasons.

Applicants note that claim 16 depends from claim 38, which is allowable for at least the reasons set forth herein above. Therefore claim 16 is allowable for at least the reasons set forth with regard to claim 38. It is requested that the rejection of claim 16 be reconsidered and withdrawn.

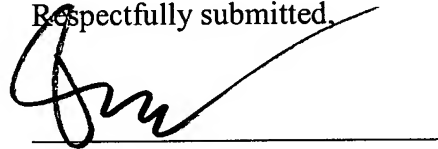
Claims 17 and 19 were rejected under 35 USC 103(a) as being unpatentable over Cantarini in view of Kim, U.S. Patent No. 5,994,200. The applicants respectfully request that the rejection be withdrawn for the following reasons.

Claims 17 and 19, by virtue of depending from claim 38 are allowable for at least the reasons set forth herein above with regard to claim 38. It is requested therefore that the rejection of claims 17 and 19 be reconsidered and withdrawn.

In view of the foregoing, the applicants submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

If there are any problems with the payment of fees, please charge any underpayments and credit any overpayments to Deposit Account No. 50-1147.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. L. Scott, II', is written over a horizontal line.

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